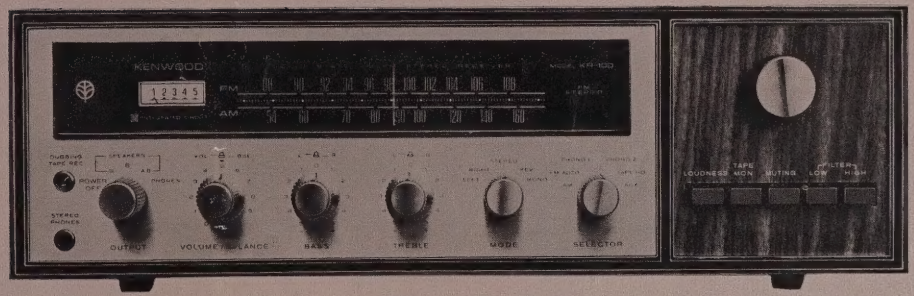
KENWOOD®

# KR-100

## SOLID STATE AM-FM STEREO RECEIVER

## INSTRUCTION MANUAL



## WELCOME TO KENWOOD'S ALL-NEW SOLID STATE CIRCUITRY

Getting acquainted with your new Kenwood KR-100 is an exciting experience. Transistors **with FET** (**Field Effect Transistor**) **and I C** (**Integrated Circuit**) are ready to give you SOLID STATE AM-FM AUTOMATIC STEREO RECEPTION of highest quality. You'll find the excitement multiplies as you discover the many other features hidden inside and displayed outside the handsome new chassis.

Your KR-100 is equipped with a newly developed and patented protection circuit which guards against widespread transistor damage from short circuits at the output terminals or speaker circuits. The KR-100 gives extra long-life to output transistors.

A total of 140 watts (at 4 ohms), 110 watts (at 8 ohms) power and FM AUTOMATIC circuit are ready to select FM STEREO stations instantly with the help of a built-in, high standard silent switching system.

Go ahead — enjoy it! Your new Kenwood KR-100 expects rugged use. It was designed and engineered to take it.

# KENWOOD® AUTHORIZED SERVICE CENTERS IN U.S.A.

| | | |
|---|---|---|
| **ARIZONA** | **Hi Fi Stereo Specialists** | 1042 E. Camelback, Phoenix, Ariz. |
| | **Electronic Engineering Service** | 766 W. Main St., Suite "F", Mesa, Ariz. |
| **CALIFORNIA** | **Kenwood Electronics** | 3689 S. Main St., Los Angeles, Calif. |
| | **Lewton's Radio & T. V.** | 4255 University Ave., San Diego, Calif. |
| | **Photo Electronics** | 1243 University Ave., San Diego, Calif. |
| | **California Sound Engnrs.** | 475 Barneveld Ave., San Francisco, Calif. |
| | **Audio Instruments** | 1019 N. San Antonio, Los Altos, Calif. |
| **COLORADO** | **A. B. & K. TV. Service** | 1459 So. Pearl St., Denver, Colo. |
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| | **Vernon F. Miller** | 10020 S. W. Canyon Rd., Portland, Ore. |
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| | **Bell Electronics** | 2535 Times Blvd., Houston, Tex. |
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| **UTAH** | **Audio Tech** | 156 So. Main, Salt Lake City, Utah |
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| **WASHINGTON** | **Del's Service Electric** | 22331 Marine View Dr., Des Moines, Wash. |
| | **FM Radio Engineering** | 2313 Fifth Ave., Seattle, Wash. |
| | **Ra-Tel's Radio & T.V.** | North 3911 Monroe, Spokane, Wash. |
| | **Electronic Service Center** | 17171 Bothell Way N. E., Seattle, Wash |
| **ALABAMA** | **Lawrence Hi Fi** | 1927 11th Ave., S. Birmingham, Ala. |
| | **Woodard Radio & T.V. Serv.** | Box 426 Hartselle, Ala. |
| **CONNECTICUT** | **Audio Service Co.** | 231 Asylum St., Hartford, Conn. |
| | **Keller Audio Service** | 520 West Ave., Suite 203, Norwalk |
| **DISTRICT OF COLUMBIA** | **National Electronic Serv. Co.** | 6902 4th St. N. W. District of Columbia |
| **FLORIDA** | **Audio Sound Co.** | 304 W. 15th St., Panama City, Fla. |
| | **Frutchey Audio Labs** | 339 Park Ave. So. Winter Park, Fla. |
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| | **Hi Fi Service Center** | 25 W. 12th St., Jacksonville, Fla. |
| | **Music Center** | 1009 E. Sunrise Blvd., Ft. Lauderdale, Fla. |
| | **Safs** | 2115 W. Kennedy Blvd., Tampa, Fla. |
| | **Southern Authorized Factory Service Inc.** | 62 N. W. 27th Ave., Miami, Fla. |
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*Continued on reverse side*

| | | |
|---|---|---|
| **ILLINOIS** | **Electronic Engineers** | 1639 W. Evergreen, Chicago, Ill. |
| | **Sonotronics Lab. Ltd.** | 11758 S. Western Ave., Chicago, Ill. |
| | **Sun Radio & T.V.** | 1724 E. 79th St., Chicago, Ill. |
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| **KENTUCKY** | **Hi Fidelty, Inc.** | 145 Thierman Lane, Louisville, Ky. |
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| **MASSACHUSETTS** | **Bills T.V. & Radio Shops Inc.** | 509 Warren St., Roxbury, Mass. |
| **MICHIGAN** | **Intercity Electronics** | 10545 Whittier, Detroit, Mich. |
| | **Radio Tube Mdsing. Co.** | 3621 Fenton Rd., Flint, Mich. |
| **MINNESOTA** | **Mel's T.V. Sales & Service** | 1314 E. Superior St., Duluth, Minn. |
| | **Sound Of Music** | 404 14th Ave. S. E. Minneapolis, Minn. |
| | **Sound Of Music** | 242 So. Hamline, St. Paul, Minn. |
| | **Sound Of Music** | 91 So. 10th St., Minneapolis, Minn. |
| **MISSOURI** | **Glen Echo** | 8359 Olive Blvd., St. Louis |
| **NEBRASKA** | **Electronics Unlimited** | 414 So. 11th St., Lincoln, Neb. |
| **NEW JERSEY** | **Audiolab** | 28 Easton Ave., New Brunswick, N. J. |
| **NEW YORK** | **Radio & Electronics Service** | 401 N. Townsend Dr., Syracuse, N. Y. |
| | **Kenwood Electronics, Inc.** | 69 — 41 Calamus Ave., Woodside, N. Y. |
| | **Mishlanie's Electronics** | 709 W. Cooper St., Utica, N. Y. |
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| | **Syracuse Communications** | 2180 Erie Boulevard, E. Syracuse, N. Y. |
| **NORTH CAROLINA** | **Bradley's Hi Fi Center** | 626 Hendersonville, Asheville, N. C. |
| | **Vickers Electronics Supply** | 506 E. Main St., Durham, N. C. |
| **OHIO** | **Feltronics** | 2020 E. 3rd St., Dayton, Ohio |
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| **SOUTH CAROLINA** | **Arthur Rixon & Sons** | 209 W. Washington, Greenville, S. C. |
| **VERMONT** | **Fred Westphal** | Lake Elmore, Vt. |
| **VIRGINIA** | **Audio Center** | 159 E. Little Creek Rd., Norfolk, Va. |
| | **Dumas Electronic Co.** | 4510 Lee Highway, Arlington, Va. |
| **WISCONSIN** | **Evans Radio** | 613 University Ave., Madison, Wis. |
| | **Rahr's** | Hancock At So. 10th St., Manitowoc, Wis. |

## IMPORTANT !

The above list of KENWOOD authorized service centers is as of June 15, 1968. This list is subject to change. For the name of the KENWOOD authorized service center nearest to you, write to our office in New York or Los Angeles.

The KENWOOD warranty does not extend to unit which has been repaired or altered by unauthorized agencies.

**KENWOOD ELECTRONICS, INC.**

69-41 Calamus Avenue, Woodside, New York 11377, Tel: 478-6220
3700 South Broadway Place, Los Angeles, Calif. 90007, Tel: 232-7217

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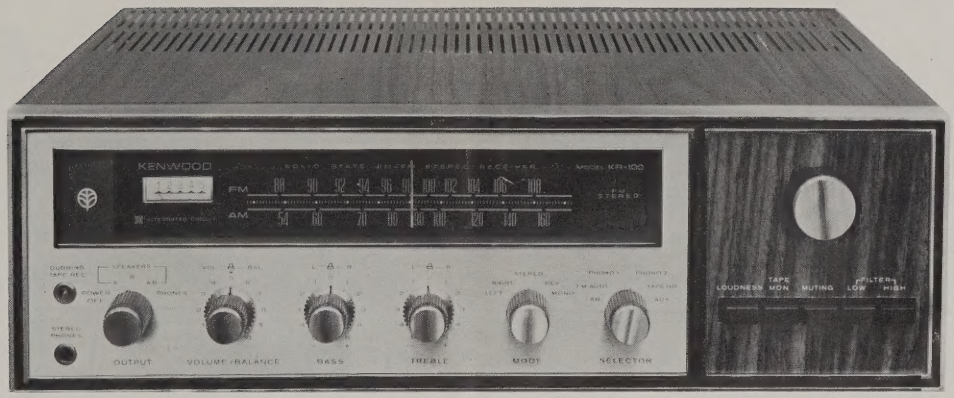
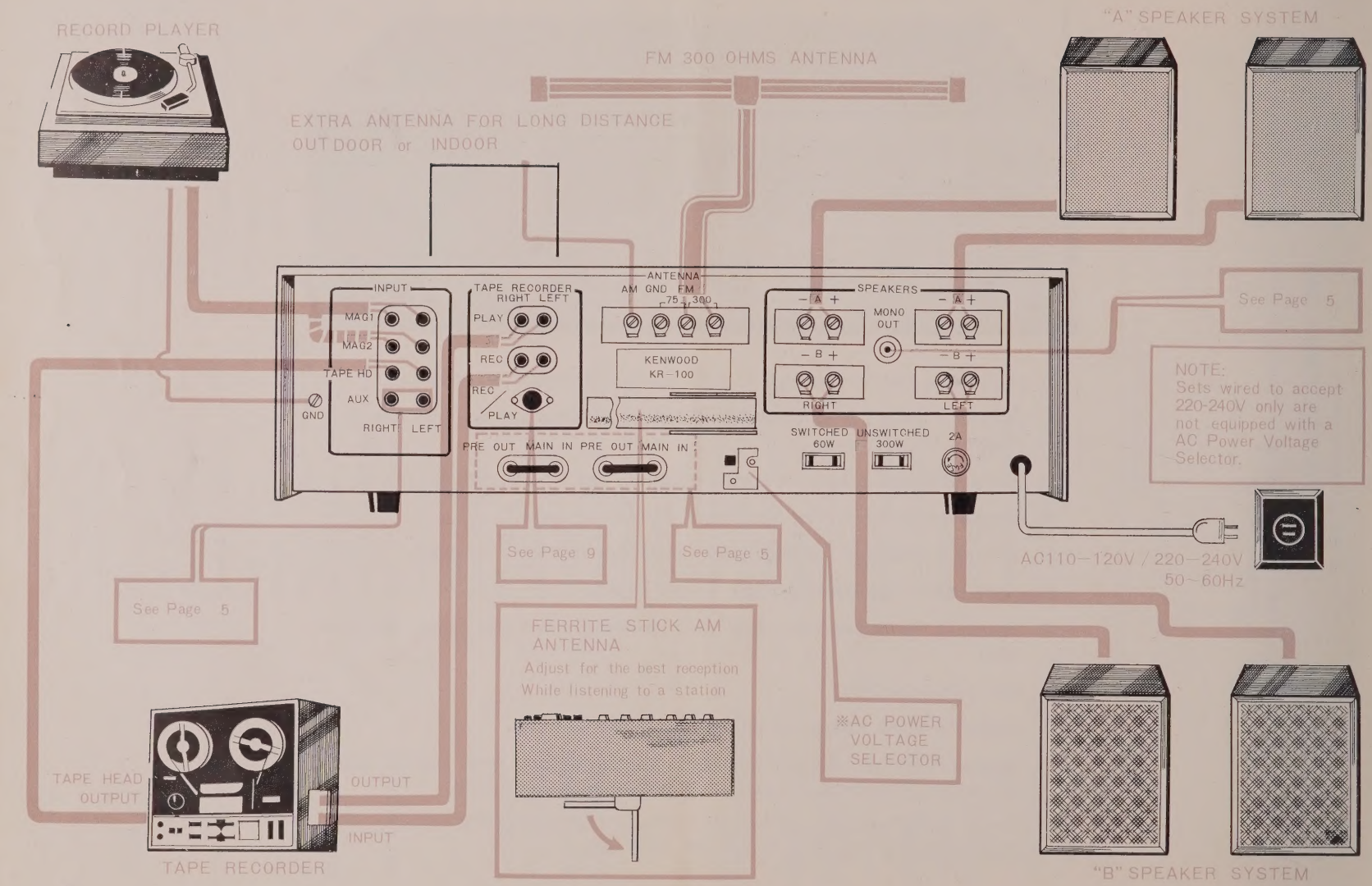
# SPECIAL KR-100 FEATURES




1) High Power Output — enough to drive any low efficiency Hi-Fi speakers.
2) FET FM 4 Gang Tuning Condenser Front-end provides superior sensitivity & spurious response ratio.
3) 4 IC's IF Stages provide very high selectivity and 2.5 dB capture ratio.
4) Interstation muting circuit suppresses inter-station noise.
5) 2 Pairs of Magnetic Cartridge inputs for 2 sets of Record Players.
6) Front Panel Tape Dubbing (Tape recopying Jack.)
7) Automatic FM Stereo/Mono Mode silent switching circuit with stereo light indicator.
8) New Luminous Dial.
9) Heavy Fly-Wheel tuning dial and new large tuning meter.
10) Speaker terminals for 2 sets of stereo speakers and front panel OUTPUT selector switch (A speakers, B speakers, A & B speakers and phones.)
11) Power transistors are protected from blow-outs by KENWOOD'S exclusive automatic protection circuit (U. S. Pat. No. 3277386).

# INTERCONNECTING DIAGRAM



# CONNECTIONS TO COMPONENT PARTS

## SPEAKER CONNECTIONS

A special circuitry has been incorporated in this unit so that more than one set of speakers (in different rooms, for instance) can be hooked up.

4, 8, or 16 ohm speakers are suitable. In connecting only one set of speakers, connect the right speaker to right speaker terminals and left speaker to left speaker terminals of "A" terminals. Should plus or minus of either right or left channel be reversely connected, sounds from the center section will be affected by a lack of separation. To connect a second set of speakers, connect right speaker to right speaker terminals and left speaker to left speaker terminals of "B" terminals.

● "A • B SPEAKERS" position of the OUTPUT selector switch will not work unless both A speakers system and B speakers system are connected.

## 3 STEREO SPEAKER SYSTEM

● See Figure 1 for making proper connections from the B SPEAKER OUTPUT when it is desired to use three sets of speaker systems.

## PHASING OF THE SPEAKERS

● Proper phasing of the two speakers is important for deriving the best performance. This is to assure that low frequency or bass tones are not eliminated by speakers that are working in opposition to each other.

● After your speakers are connected, listen to the intensity of the bass tone. Then reverse the lead connections of the speakers and listen to the sound again. The position of the lead connections where the bass intensity was the greatest is the proper one and the speakers will then be permanently in phase.

## STEREO HEADSET JACK

Enjoy the wonderful sounds of stereo without disturbing others or monitor the playback of tapes as you record them with your stereo headset. Plug the headset into the STEREO PHONES JACK and turn the OUTPUT selector switch to PHONES position.

## TAPE RECORDERS

You may tape FM MONAURAL, FM STEREO, AM and RECORDS by connecting the output jack of TAPE REC to the input jack of the tape recorder. Play back your recordings by simply connecting the line output of your tape recorder to the TAPE PLAY jack of your KR-100 (Diagram, page 3.)

**Note:** KR-100 has a DUBBING TAPE REC Jack in its front panel as well as on the rear panel so that the connection can be made easily between a Tape Recorder and KR-100. (See page 10)

How to wire the connection plug is as shown in Figure 2.

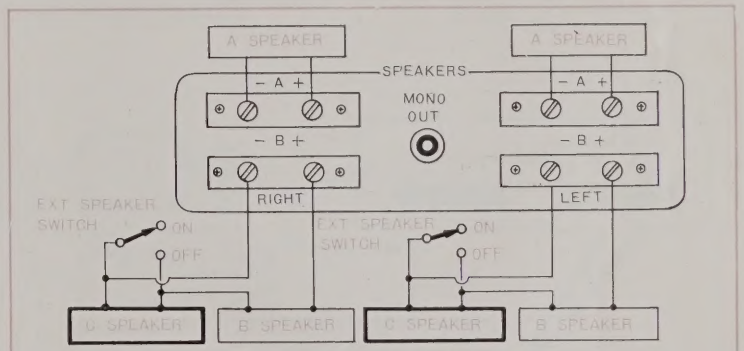



Fig 1 THREE Sets of Speaker System

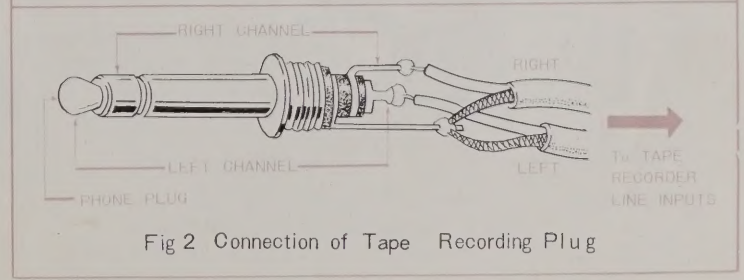



Fig 2 Connection of Tape Recording Plug

# CONNECTIONS TO COMPONENT PARTS

## STEREO RECORD PLAYERS

The two lines of shielded cord from your stereo record player should be terminated with RCA type phono plugs. Cords should not exceed ten feet in length. (An excess will create a loss in high frequency range).

Two pairs of stereo phono inputs have been incorporated in this unit so that two sets of stereo record players can be hooked up. When operating MAG 1 (or MAG 2), switch the output selector switch to Phono 1 (or Phono 2).

## AUX

Auxiliary inputs can be used for a second tuner, tape recopying, etc. (See Figure 8, page 9).

## PRE-AMPLIFIER OUTPUTS AND MAIN AMPLIFIER INPUTS

Stereo pre-amplifier outputs and stereo main amplifier inputs are incorporated in this unit. When using this amplifier as a pre-amplifier or a main amplifier only, remove the attached jumper connector and connect another main or pre-amplifier. When making a multi-channel system with this amplifier, remove the attached jumper connectors and insert a dividing filter between main amplifier inputs and pre-amplifier outputs. The input impedance of main amplifier is 50 K ohms and its input sensitivity is 100 mV. (FIG. 3.) When using this KR-100 as a pre-main amplifier, do not remove the jumper connector from the unit.

## MONO OUTPUT

The output voltage of this jack is about 1 V (at 1 K ohms output impedance), which is the mixed monaural signal of left and right channels. Connect this to the AUX input jack of the monaural amplifier to drive the extra speaker.

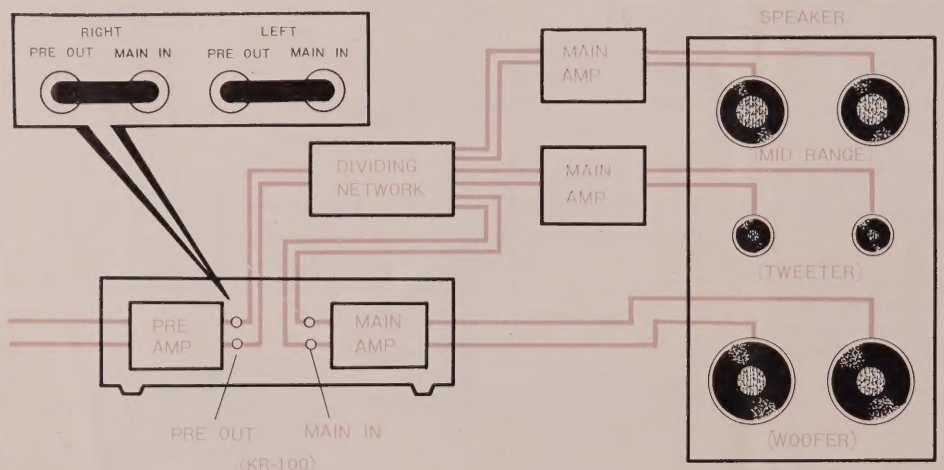



Fig 3 Connection of Pre Out-Main in

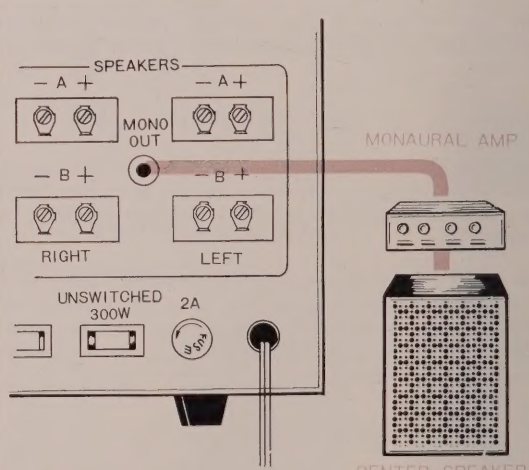
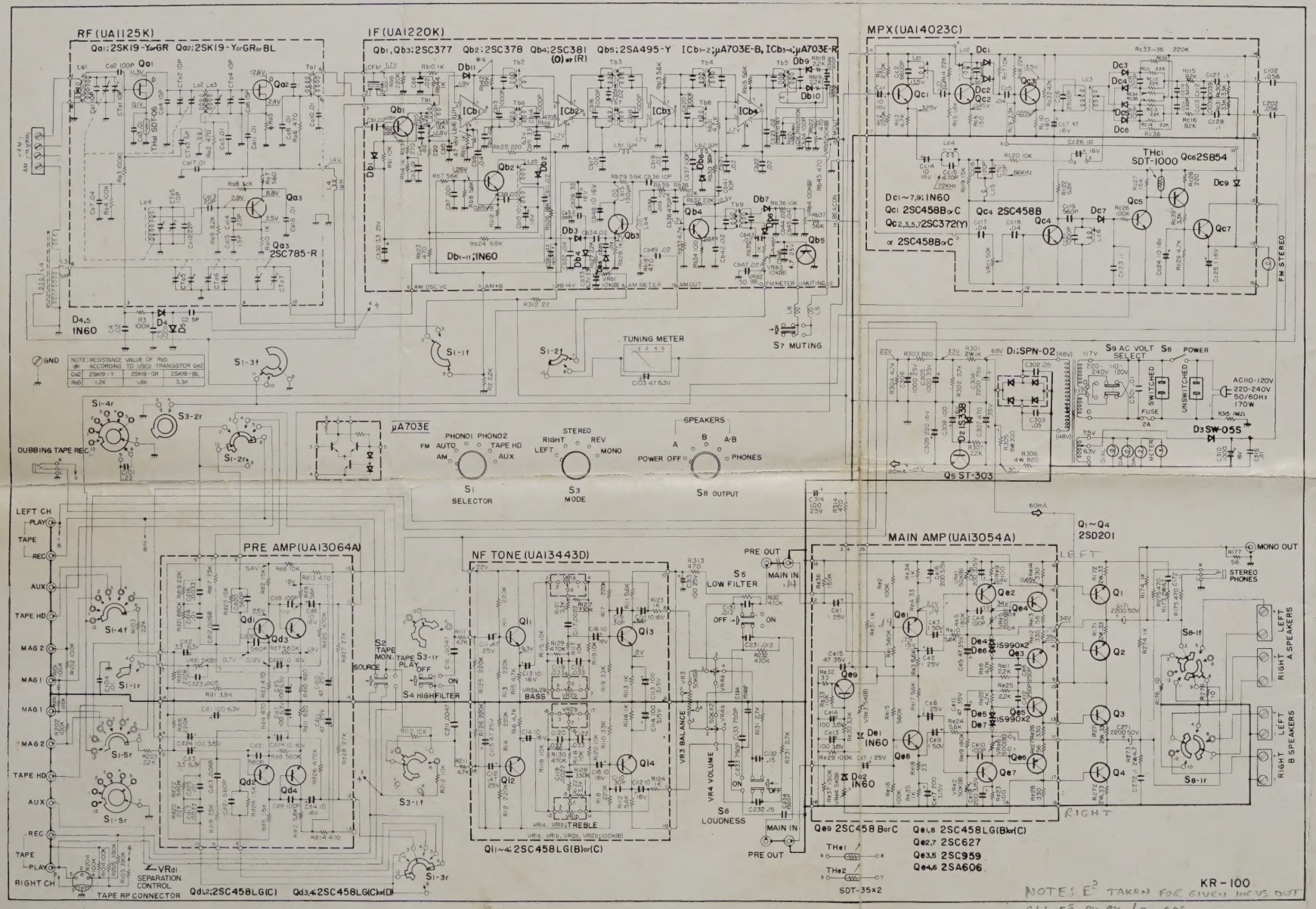



Fig 4 Connection of Mono Output

# KR-100 SCHEMATIC DIAGRAM

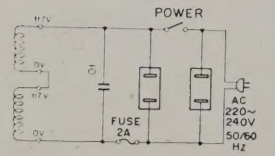



NOTE: The schematic diagram above is for the KR-100 receivers made for operation in AC 110-120V/220-240V power source areas. Revised power transformer circuits for those receivers made to accept different power source voltages are shown at the right. Also please note the MPX and IF unit changes explained at the right for receivers sold in Europe.

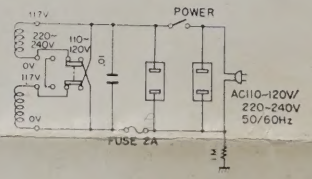
We reserve the right to make modifications in this model in accordance with technical developments

## POWER TRANSFORMER ARRANGEMENTS

■ **For AC 220-240 V Sets**




■ **For Sets sold in Canada & U.S.A.**




NOTE:
The power transformer secondary for 7.5 volts is equipped with a 2 ampere fuse on all sets sold in Europe except England.

**(MPX Unit)**
The MPX unit block number for receivers sold in Europe is UA14021C. The values of Cc 10 and Cc 11 are 220P, and Cc 12 and Cc 13 are 2700P.

**(IF Unit)**
The IF unit number for all receivers sold in Europe except for England is UA1220E.

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# ELECTRICAL CONNECTION

## POWER

Plug the AC line cord into an outlet furnishing 110 to 120 volts or 220 to 240 volts AC, 50 — 60 Hz.

The AC outlets on the back of the amplifier may be used to supply power to other components, such as a record player, tape recorder, etc.

1. Switch outlet (60 watts)
   This is switched with the power switch on the amplifier. IMPORTANT! Do not connect any electrical equipment with a power consumption of more than 60 watts.
2. Unswitched outlet (300 watts)
   This is not connected to the power switch on the amplifier. IMPORTANT! Do not connect any electrical equipment with a power consumption of more than 300 watts.

**NOTE: AC VOLTAGE SELECTION**

This unit is pre-set to be used at 220 — 240 volts AC. In countries with 110 — 120 volts AC, set the AC switch from 220 — 240 volts to 110 — 120 volts as follows:

1. Turn the power switch to "OFF".
2. Remove the black plate which is affixed to the AC switch on the rear panel.
3. Set the slide switch to the left.
4. The black plate has 220 — 240 V stamped on one side and 110 — 120 V stamped on the other side. Affix this black plate so that the 110 — 120 V mark is visible.

Figure 5 illustrates the AC switch set for 110/120 volts AC.

## AM ANTENNA

The ferrite stick built into the Model KR-100 assures adequate reception of all local AM stations. However, in fringe areas, high noise areas, or where surrounding metal objects interfere with normal reception, a regular antenna lead should be connected to the terminal designated AM.

NOTE: The ferrite stick is mounted on a swivel bracket. For maximum pickup, the stick should be swung away from the chassis.

## FM ANTENNA

Three terminals are provided for connection to a 300 ohms and 75 ohms FM antenna as shown in Figure 6.

For good FM stereo reception, always use the best antenna possible. In areas close to the transmitter, a simple indoor dipole antenna may suffice. (It should be remembered, however, that the pickup of reflections (similar to "ghosts" on TV) will result in poor stereo reception. These reflections must therefore be reduced to a minimum, either by careful orientation of the indoor antenna or, if this will not eliminate them, by using a more directional outdoor type antenna.

In areas a greater distance from the transmitter, the use of an outdoor antenna is highly recommended. These are available in various types. For reception of stations scattered in many directions, a non-directional type may be required. If the desired stations lie mostly in one direction, a high-directional type of antenna will offer better results. When using a directional antenna, always orient it for the best reception of the desired station. The correct position will be indicated by maximum deflection of the tuning meter on your receiver.

Fig5 AC Voltage Switch

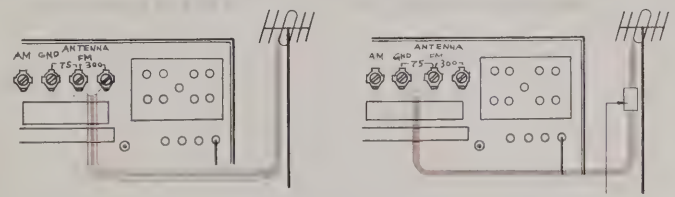



Fig6 FM Antenna Connection

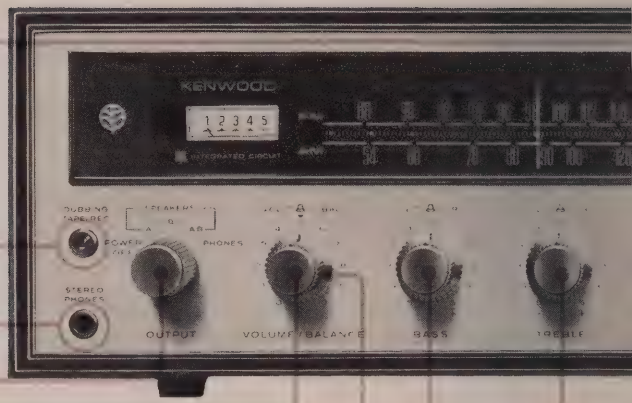
### ① FM STEREO

This is the stereo indication. When the SELECTOR switch is set at FM AUTO and an FM stereo broadcast is tuned in, the tuner will automatically switch electronically for stereo mode reception.

The words "FM STEREO" will illuminate this.

See page 9 10

See page 4




### ② OUTPUT

■ **POWER OFF** — Shuts off the power of the unit.

■ **A SPEAKERS** – The power is on and sound can be heard from the first set of speakers only.

■ **B SPEAKERS** — For listening through the second set of speakers only.

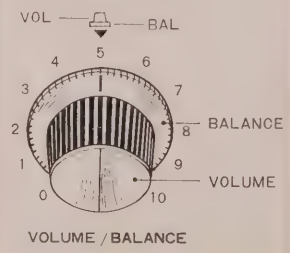
■ **A & B SPEAKERS** — For listening through both sets of speakers.

■ **PHONES** — Silence both speaker systems for complete privacy when listening with headphones.

### ③ VOLUME

The single control designated VOLUME adjusts the level of both channels simultaneously.

To adjust one channel only, use the BALANCE control.




VOLUME / BALANCE

### ④ BALANCE

This control provides a simple means of adjusting the levels of both channels for proper balance during stereophonic reproduction.

### ⑤ BASS

Turning clockwise increases bass tone and counter-clockwise decreases it while center setting is at Flat.

### ⑥ TREBLE

Turning clockwise increases treble tone and counter-clockwise decreases it while center setting is at Flat.

### ⑦ MODE

■ **LEFT** — Left input program reproduction is provided through both speakers.

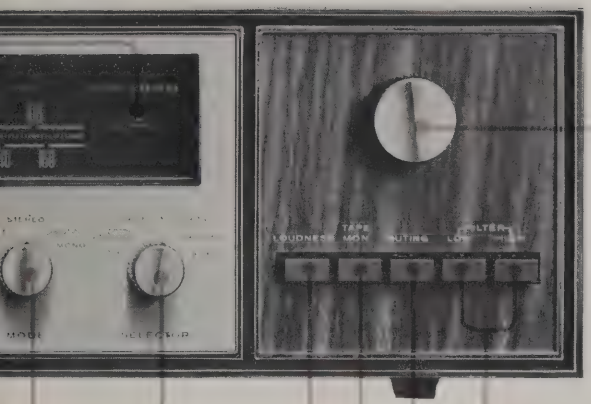
■ **RIGHT** — Right input program reproduction is provided through both speakers.

■ **STEREO** — This provides stereophonic reproduction of any stereo program source. This position will also provide monophonic reproduction through both channels when the SELECTOR switch is in the FM MONO or AM position.

■ **REV** – This reverses positions of the two speakers. The left signal is now heard from the right speaker, and right signal from the left speaker.

■ **MONO** — Mixes left and right channel.

# EIR FUNCTIONS



### ⑭ TUNING

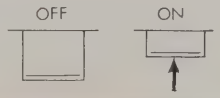
Use the tuning knob to select the AM and FM station desired. Adjust further by tuning for maximum deflection of the TUNING meter while listening to the speaker output.

### ⑧ SELECTOR

■ **AM**—Selects the output of the AM tuner section for reproduction through the amplifier.
■ **FM AUTO**—Selects FM Broadcasting stations automatically with the help of a built-in high-standard switching system.
When an FM Stereo broadcast is tuned in the STEREO indication lights up.
■ **PHONO 1**— Select sources connected to MAG 1 input jacks.
■ **PHONO 2**— Select sources connected to MAG 2 input jacks.
■ **TAPE HD**— Selects sources connected to the TAPE HD jacks.
■ **AUX**— Selects sources connected to the AUX input jacks.

### ⑨ LOUDNESS

This switch provides the frequency response change (bass and treble boost) if required by individual at low listening levels and permits the VOLUME control to function as a compensated loudness control.

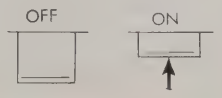



### ⑩ TAPE MON

For playback of tapes or for monitoring of the recording.
(See page 10)

### ⑪ MUTING

This switch silences the strong interstation noise encountered on the FM band, but this switch may also eliminate the signal of a weak and distant station along with the interstation noise
Therefore, in weak and distant station reception, it is better to leave this switch in OFF position.

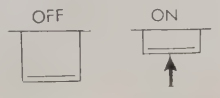



### ⑫ LOW FILTER

This switch inserts a low frequency filter into the circuit and reduces rumble from a noisy turntable or changer with minimum effect on program material
(200Hz cut-off)

### ⑬ HIGH FILTER

This switch inserts a filter into the circuit and reduces the high-frequency noise.
(3000Hz cut-off)



## R. P. CONNECTOR (DIN CONNECTOR)

Normally for most recording and playback, separate cables must be connected to their respective input jacks on the amplifier; however, if your tape recorder is equipped with R & P (Record and Playback) 5-Pins connector type patch cord, a special jack (connector) is provided on the KR-100 enabling both recording and playback with this single cable.

## TAPE HD

Tape recorder with direct tape head output should be connected to the TAPE HD inputs. As the output voltage of a tape head is very low the cable may pick up hum; therefore the cable should be carefully positioned to eliminate any hum.

## TAPE RECOPYING

To make a copy of a recorded tape on to another tape, follow the connecting instruction as shown in FIG. 8. Then set Input selector switch at AUX, set TAPE MONITOR switch to "ON" position and operate your equipments simultaneously.

*Front Panel Tape Dubbing (Recording) Jack*

When dubbing into a new tape from a recorded tape of the Playback Tape Deck (A), insert the Input Jack of the Tape Recorder (B) to be used for recording into the Tape Dubbing Jack on the front panel of the KR-100. The tape monitor switch should be set at "ON" position. (See Figure 9)

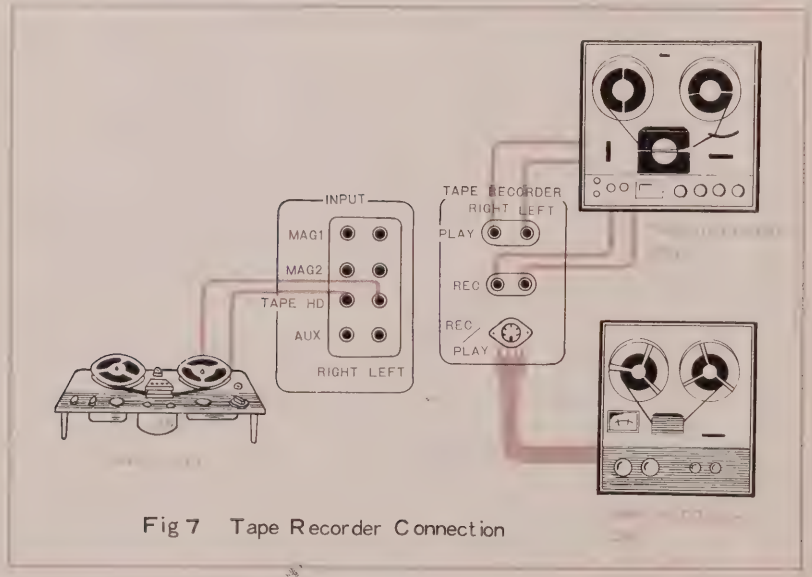



Fig 7 Tape Recorder Connection

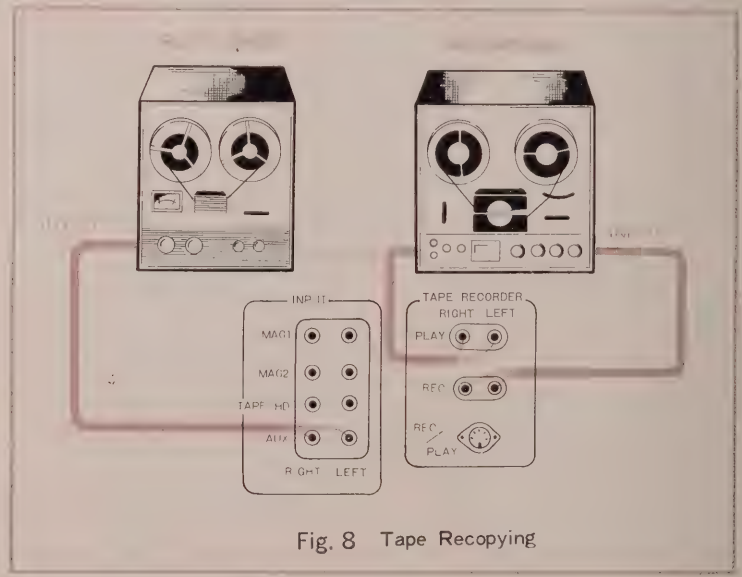



Fig. 8 Tape Recopying

## TAPE MONITOR

The KR-100 incorporates a Tape Monitoring circuitry enabling you to monitor while you record. Connections to the tape recorder are made as explained in the section dealing with "Interconnecting Diagram".

*For Two-head Tape Recorders*

Ordinary two-head type tape recorders are not equipped with a separate playback monitor amplifier to enable tape recording and simultaneous monitoring. Therefore, when **recording,** set the Tape Monitor Switch to OFF position, and feed the signal to be recorded through the KR-100. And, for **playback** of the recorded tape through the KR-100 speaker system, set to ON position.

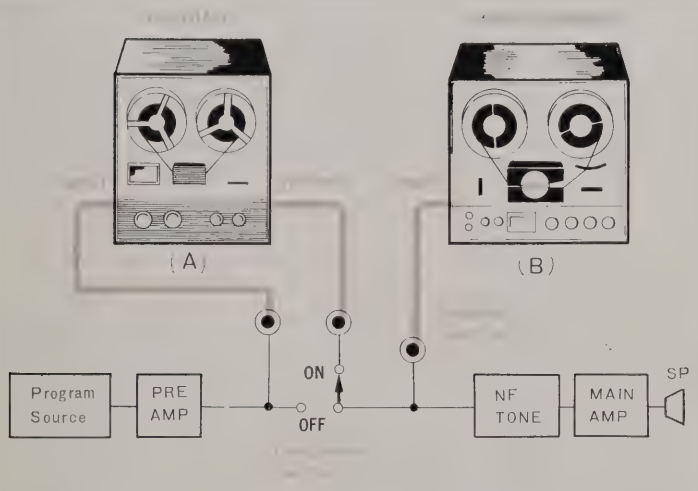



Fig 9 Connection of Tape Dubbing Jack

*For Three-head Tape Recorders*

Three-head type tape recorders have separate recording and playback heads, and their respective separate amplifiers. This enables simultaneous playback monitoring of the recording. For operating the KR-100 in conjunction with three-head type recorders, set the TAPE MONITOR switch to ON position. This enables monitoring the recording and fully controlling level, acoustic balance, microphone position, etc.

For playback of the recorded tape, set to OFF position.

## WARNING

### PROTECTION CIRCUIT

The newly developed protection circuit is completely effective and prevents damage which may be caused by short circuits at the speaker outputs or the electrical overloading point. When a short circuit occurs this protection circuit will function automatically to protect the transistors. The program sound will be heard off and on intermittently about every one second. In this case, there is no fear of damaging the transistors. Just switch off the supply line and check the connections.

### FUSE

Shield 2A fuses are used; Rotate the fuse holder counter-clockwise for replacing. If a fuse fails, check carefully the reason for the blow-out and then replace the fuse. When something is wrong with the supply circuit, the fuse will blow again. Do not, in any case, use copper wire in place of the specified shield fuse.

| | | | | | | | | BALANCE |
|---|---|---|---|---|---|---|---|---|
| | AM ANTENNA | SPEAKERS or PHONES | AM | STEREO or MONO | "O" POSITION | OFF | OFF or ON | To BE BALANCED |
| | FM ANTENNA | SPEAKERS or PHONES | FM AUTO | (MONO OPERATION) STEREO or MONO (STEREO OPERATION) ※ STEREO | O" POSITION | OFF | OFF or ON | To BE BALANCED |
| | MAG 1 | SPEAKERS or PHONES | PHONO 1 | STEREO or MONO | "O" POSITION | OFF | OFF or ON | To BE BALANCED |
| | MAG 2 | SPEAKERS or PHONES | PHONO 2 | STEREO or MONO | "O" POSITION | OFF | OFF or ON | To BE BALANCED |
| | TAPE HD | SPEAKERS or PHONES | TAPE HD | STEREO or MONO | "O" POSITION | OFF | OFF or ON | To BE BALANCED |
| | AUX | SPEAKERS or PHONES | AUX | STEREO or MONO | "O" POSITION | OFF | OFF or ON | To BE BALANCED |
| | TAPE PLAY | SPEAKERS or PHONES | ANY POSITION | STEREO or MONO | "O" POSITION | ON | OFF or ON | To BE BALANCED |
| | DUBBING | SPEAKERS or PHONES | NO PROGRAM POSITION | STEREO or MONO | "O" POSITION | ON | OFF or ON | To BE BALANCED |

Note: This chart shows the most usual operation. Bass and Treble Control, Loudness Switch, Muting Switch (only for FM operation), Low and High Filter Switch can be set according to your listening desire.

※: FM STEREO broadcasting is AUTOMATICALLY selected. The words "FM STEREO" will automatically illuminate to show that a stereo broadcast is tuned in.

# SPECIFICATIONS

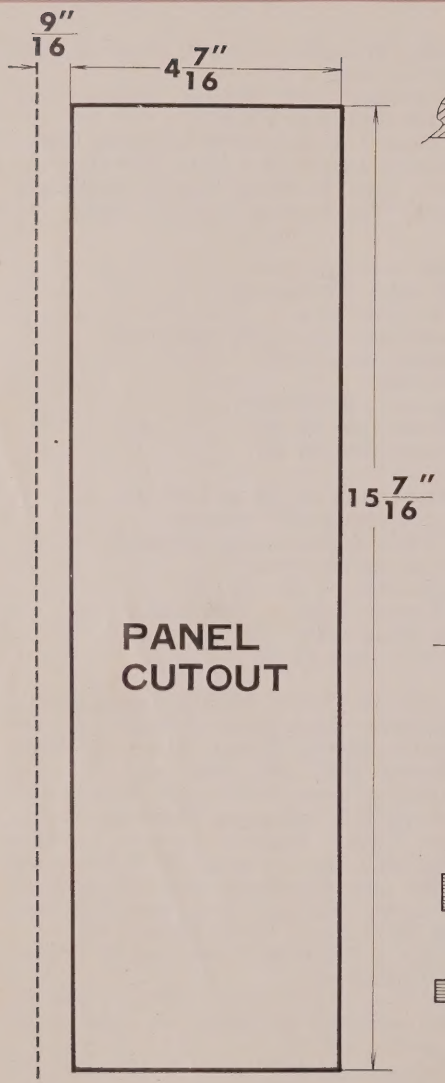
**AMPLIFIER SECTION :**

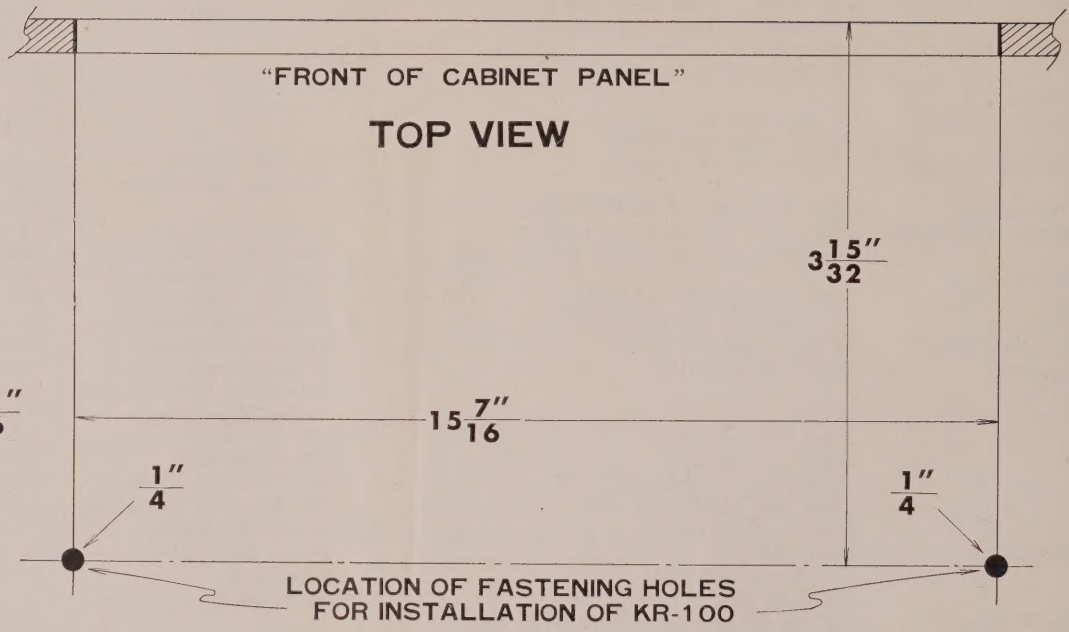
| | |
|---|---|
| **Output Power:** | 170 watts ±1 dB at 4 ohms<br>135 watts ±1 dB at 8 ohms |
| **Dynamic Power (IHF):** | 140 watts at 4 ohms<br>110 watts at 8 ohms |
| **Continuous Power :** | |
| **Each Channel Driven:** | 50/50 watts at 4 ohms<br>40/40 watts at 8 ohms |
| **Both Channel Driven:** | 33/33 watts at 8 ohms |
| **Distortion:** | |
| **Harmonic Distortion:** | Less than .5% at rated output |
| **Intermodulation Distortion:** | Less than .5% at rated output<br>Less than .2% at – 3 dB rated output |
| **Frequency Response:** | |
| **Main Input:** | 13 to 70,000 Hz (±1.5 dB) |
| **High Level Input:** | 20 to 30,000 Hz (±1.5 dB) |
| **Power Bandwidth (IHF):** | 18 Hz to 30,000 Hz |
| **Channel Separation:** | Better than 50 dB |
| **Input Sensitivity** (for rated output) | MAG....2.5 mV<br>Tape HD... 3.5mV<br>AUX....160 mV<br>Tape play....(pin) 160 mV<br>Tape play (DIN) 160 mV<br>Main....100 mV |
| **Recording Output :** | (pin) 160 mV<br>(Dubbing) 160 mV<br>(DIN) 32 mV |
| **Maximum Input Signal:** | 180 mV (p - p 1000 Hz) at MAG input |
| **Hum and Noise:** (Below rated output) | Phono (MAG) 60 dB<br>Tape HD 60 dB<br>AUX 70 dB<br>Tape Play 70 dB<br>Noise at minimum volume control . . . Less than 1.5 mV at 8 ohms or .28 micro watts |
| **Damping Factor:** | 24 at 8 ohms |
| **Speaker Impedance:** | 4, 8 and 16 ohms |
| **Bass Control:** | ±10 dB at 100 Hz |
| **Treble Control:** | ±10 dB at 10,000 Hz |
| **High Filter:** | 3,000 Hz cutoff |
| **Low Filter:** | 200 Hz cutoff |
| **Loudness Control:** | +8 dB at 100 Hz, +3 dB at 10K Hz (at – 30 dB) |
| **Output Switch:** | Power off, A speaker, B speaker, A - B speakers and Phones. |
| **Mode Switch:** | Left, Right, Stereo, Rev. & Mono |
| **Selector Switch:** | AM, FM AUTO, Phono 1, Phono 2, Tape HD & Aux. |
| **Push-Button Switch:** | Loudness, Tape Monitor, Muting, Low Filter and High Filter. |
| **Outputs:** | 2 pairs of stereo speaker terminals, Center channel output (low level), Pre-amp output, Tape recording output, Headphone jack, Tape Dubbing jack, AC outlet. |

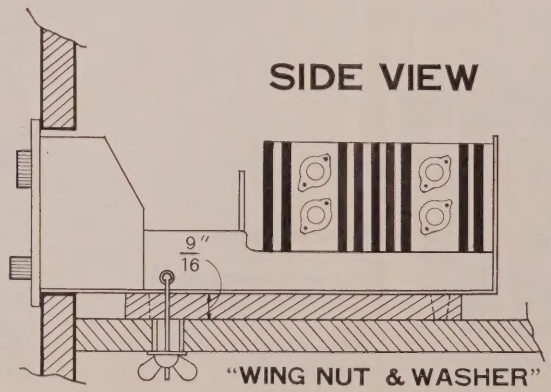
**TUNER SECTION :**

| | |
|---|---|
| **FM: Antenna Impedance:** | 300 ohms balanced<br>75 ohms unbalanced |
| **Sensitivity (IHF):** | 1.8 micro Volts |
| **Harmonic Distortion:** | Less than .5% 400Hz 100% mod. |
| **Signal To Noise Ratio:** | Better than 60 dB |
| **Capture Ratio:** | 2.5 dB |
| **Image Rejection:** | Better than 70 dB |
| **Spurious Response:** | Better than 90 dB |
| **IF Rejection:** | Better than 80 dB |
| **Selectivity** (Alt. channel): | 45 dB |
| **Stereo Separation:** | Better than 35 dB at 1,000 Hz |
| **FM IF Stage:** | 4 ICs (Integrated circuits) |
| **FM Front-end:** | 2 FETs, 4 gang tuning condenser |
| **Inter Station Muting:** | Push button switch |
| **FM Spurious Radiation:** | Less than 34 dB (50 μV) |
| **AM: Sensitivity (IHF):** | 15 micro Volts at 1,000 kHz |
| **Image Rejection:** | 90 dB at 1,000 K Hz |
| **Selectivity:** | Better than 25 dB |
| **Special Features:** | 4 IC's IF Circuit, 2 FET's 4 gang Tuning condenser Super Sensitive Front-end, Inter Station Muting Circuit, Heavy Fly-Wheel Tuning Dial, 300 ohms and 75 ohms Antenna Input, Easy-to-use Push-button, switch, U.S. pat. power Transistor Protection Circuit, Separate Pre-amp. Output and Main Amp. Input, New Luminous-Dial, Low Filter and High Filter, Tape Monitor, Dubbing Tape Recording Jack on Front Panel, Stereo Phone Jack. |
| **Semiconductors:** | 4 ICs, 2 FETs, 35 Transistors, 38 Diodes, 5 Thermistors |
| **Power Consumption:** | AC 110 — 120 V / 220 — 240 V, 50/60 Hz 170 watts at full power 40 watts at no signal. |
| **Dimensions :** | Inches....16½ W, 5½ H, 12¼ D. |
| **Weight:** | 22.4 lbs. net weight |

# MOUNTING TEMPLATE




DIRECTIONS FOR PANEL MOUNTING FOR KR-100

1. Locate the supporting shelf at the height you wish the receiver positioned.
2. Using the full scale "Cutout Template" make a 4-7/16″×15-7/16″ cutout in the cabinet panel. The bottom of the cutout should be flush with the bottom plate of the receiver as shown in the side view. The distance between the bottom of the cutout and the top of the supporting shelf is 9/16.
3. The receiver is held in place by two bolts. The holes must be made in the shelf to correspond with the holes in the receiver. Use the "Top view" template to locate these holes on the supporting shelf. The holes should be made 1/4″ in diameter or somewhat larger.
4. Remove the four bottom legs.
5. An air space must be made between the bottom of the set and the supporting shelf to assure good ventilation and cool operations. This spaces can be made by placing two boards which measure 9/16″ thick by 1″ width between chassis and the supporting shelf.

# NOTES

*KR-100 Serial No.* _____

*Owner* _____

TRIO

Manufactured by TRIO ELECTRONICS,INC., TOKYO, JAPAN.

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